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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/636,706	04/23/96	WOLLRATH A	P1189

EXAMINER	
CALDWELL,P	
ART UNIT	PAPER NUMBER
2755	14

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
08/636,706	Wollrath et al
Examiner	**Group Art Unit**
Pat Caldwell	2755

☒ Responsive to communication(s) filed on *Feb 19, 1999*.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *1-33* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-33* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

1. This action is in response to communication which was received 2/19/99. Claims 1-33 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. **Claims 1,4,11,14,21,24 are rejected under 35 U.S.C. 102(e) as being anticipated by Hill et al (US 5511197).**

As per **claims 1,11,21,** Hill et al teach a stub retriever (retrieving stub message address) configured to initiate a retrieval of stub (stub object within the server) from a server associated with processing of remote method, stub loader for loading stub into execution environment (loading stub code and dynamically loading code to create an instance of a proxy) [col, 6, line 65 - col. 7, line 54; col. 10, line 29-4; col. 14, lines 34-col. 15, line 6; col. 19, line 1-47].

As per **claims 4,14,24**, refer to claims 1,11,21 for rejection .

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 31-33 rejected under 35 U.S.C. 103(a) as being unpatentable over Betz, Mark, "Interoperable objects: laying the foundation for distributed-object computing", Dr. Dobb's Journal, v19, n11, p18(13) in view of Hill et al (US 5511197)

As per **claims 31 and 32**, Betz teaches computer (machine under a single operating system)[page 4 of enclosed copy, lines 14-22], stub code (stub) [page 3 of enclosed copy, first full paragraph of page; pages 7-8 of enclosed copy, section Architecture of the Orb].

However, Betz does not teach stub loader for controlling computer to load stub into execution environment to make stub available for use in remote invocation, stub retrieval module configured to control computer to initiate a retrieval of stub from a server associated with processing of remote method.

Hill et al teach stub loader (loading the code of stub 302, dynamically loading code to create an instance of a proxy), stub retrieval module (stub object 302 within the server) to control computer to initiate a retrieval of a stub (retrieving stub message address) from a server associated with processing of remote method [col, 6, line 65 - col. 7, line 54; col. 10, line 29-4; col. 14, lines 34-col. 15, line 6; col. 19, line 1-47].

It would have been obvious to modify the system of Betz by implementing retrieval of stub code and loading of stub code because it provides it provides a mechanism for automatically generating stubs and proxies.

As per **claim 33**, refer to claim 31 for rejection and combination of references. It would have been obvious to embody these limitations as code store on a computer readable medium and executable by a computer.

1, 3, 7-10, 13, 17-20, 23, 27-30 are rejected under 35 U.S.C 103(a) as being unpatentable over Hill et al (US 5511197) in view of Birrell et al , "Network Objects", 1994.

As per **claim 3**, Hill et al do not explicitly teach remote method invocation control . Birrell et al teach remote method invocation control (object-oriented system which performs the steps for remote method invocation) [pp. 5-11,17-21,31-33,39-48]. It would have been obvious to remote invocations include within the system of Hill because it provides the capability of communicating across different address spaces.

As per **claim 7**, Hill et al do not explicitly teach remote server identifier for providing server identification. Birrell et al teach remote server identifier (hostnames) for providing server identifier. It would have been obvious to include server identifiers within the system of Hill because it provides the capability for associating an address with the server.

As per **claim 8**, Hill et al in combination with Birrellet al teach remote method server identifier (endpoint) [Birrell : pp 15-16]..

As per **claim 9**, Hill et al in combination with Birrell et al teach remote method invocation identification (identifiers representing the object, the caller and the type of code) for controlling invocation of remote method [Birrell: pp 17-21].

As per **claim 10**, Hill et al in combination with Birrell et al teach nameserver (name exported from a machine server) for providing server identification and remote server identifier initiating communication with nameserver to obtain the server identification of remote method [Birrell : pp 7-9]

As per **claims 13, 17-20**, refer to claims 3, 7-10 for rejection and combination of references. It would have been obvious to embody these limitations as a method.

As per **claims 23, 27-30**, refer to claims 3, 7-10 for rejection and combination of references. It would have been obvious to embody these limitations as a computer program product.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. **Claims 2, 5, 6, 12, 15, 16, 22, 25, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hill (US 5511197) in view of Mitchell, James et al, An Overview of the Spring System, Proceedings of Compcon, February 1994.**

As per **claim 2**, Hill et al do not explicitly teach remote method reference detector for detecting whether remote method reference has been received in execution environment.

Mitchell et al teach a remote method reference detector (server creating an object reference) [page 5, section 7, last paragraph of page through page 6, line 4].

It would have been obvious to include within the system as taught by Hill et al a method reference detector as taught by Mitchell because its provides the capability of guaranteeing that the correct data is being accessed.

As per **claim 5**, Hill et al do not teach providing a separate address space for processing remote method from address space provided by execution environment .

Mitchell et al teach separate address space (servers operating in different address spaces from their clients) [page 3, section 3.1].

It would have been obvious to include with the system as taught by Hill et al the capability of separate address space because it provides a mechanism for protecting applications against interfering with each other.

As per **claim 6**, it would be obvious that the address space provided within Hill et al in combination with Mitchell et al can be provided by separate computers.

As per claims **12,15,16**, refer to claims 2,5,6 for rejection and combination of references. It would have been obvious to embody these limitations as a method.

As per claims **22,25,26**, refer to claims 2,5,6 for rejection and combination of references. It would have been obvious to embody these limitations as a computer program product.

Response to Arguments

7. Applicant's arguments with respect to claims 1,11,21,30-33 have been considered but are moot in view of the new ground(s) of rejection.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 5787281 Schreiber et al

US 5577251 Hamilton et al

Jacquemont et al " An Overview of COOL and COOL-IDL".

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pat Caldwell whose telephone number is (703) 305-3805.

ALVIN E. OBERLEY
SUPERVISORY PATENT EXAMINER
GROUP 2700